Williams Olefins, Geismer, Louisiana

Explosion & Fire - 06/13/13

Compliance History

A quick pull of the Williams Olefins Compliance History in Echo indicates:

- 2 formal enforcement actions by LDEQ in the last 5 years with total penalties of \$4500
- Last CAA inspection was conducted 12/19/2011

We understand that Williams Olefins was also in the midst of an expansion effort to increase ethylene production by 600 million pounds by the end of 2013.

EPA Region 6 referred an LDAR case to DOJ in 2009. No significant action on this case to date.

WebEOC History 2004 to 2013 (NRC Reports)

2013	1
2011	4
2010	3
2009	2
2007	6
2005	1
2004	2

There was one EPA response to sulfuric acid in 2007. WebEOC reports included benzene; propylene; butadiene 1,3; sulfuric acid; and oil material/lube/misc.

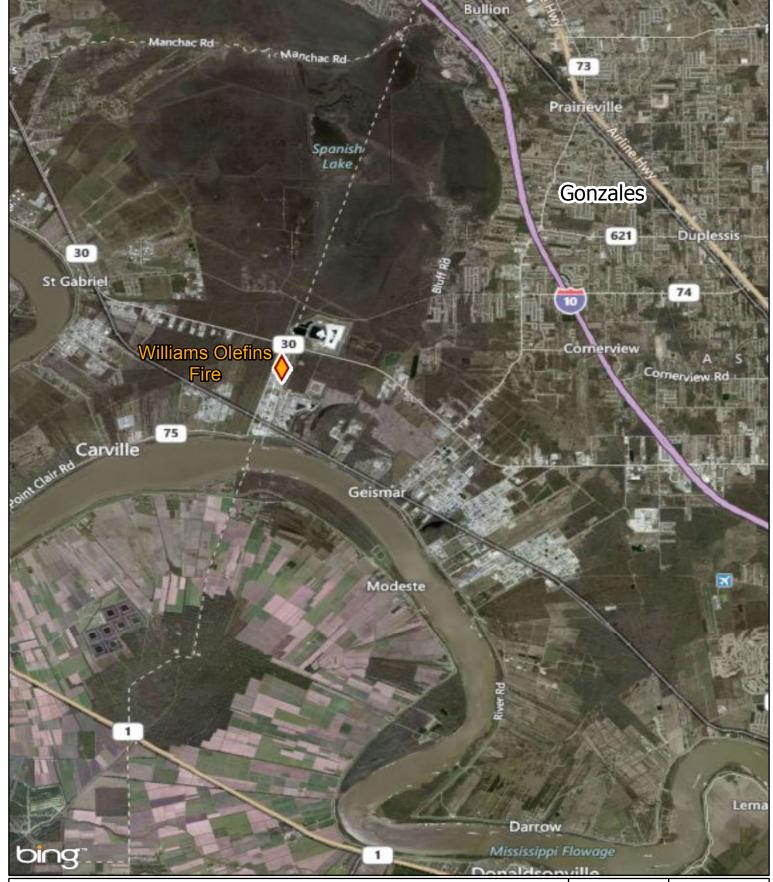
Air Permit summary

The expansion was for a capacity annual increase in ethylene production from 1.45 to 1.95 billion pounds.

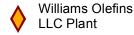
New Equipment consisted of 2 new cracking heaters with SCR and associated equipment. Replacement of the existing elevated Olefin Plant flare with a low profile multihead system designed to accommodate the increased thruput.

Replacement of all the pressure relief valves into the proposed Olefin Plant.

Modified the existing amine system



Legend



Data: Plant Location from EPA Region 6 GIS RMP Database; Basemap from Bing. US EPA REGION 6

Williams Olefins Ethylene Plant

Geismar, LA



0 0.7 1. Miles

20130613BG01



Printed: 12:01:03 PM 6/13/2013

Facility Name: Geismar Olefins Plant

EPA Facility Identifier: 1000 0009 8119

Plan Sequence Number: 1000001237

Executive Summary

17854 LDEQ Facility ID Number

Executive Summary
Williams Olefins
Geismar Ethylene Plant
Geismar, Louisiana

Accidental Release Prevention and Response Policies

The Williams Olefins, Geismar Ethylene Plant has a long-standing commitment to protect employees, the community and the environment. This commitment is demonstrated by the resources invested in accident prevention, such as training personnel and considering safety and environmental consequences in the design, installation, operation, and maintenance of our processes. Our policy is to implement reasonable controls to prevent foreseeable releases of hazardous materials. However, if a release does occur, our trained emergency response personnel will respond to control, contain and mitigate the release.

Description of the Stationary Source and Regulated Substances

The Geismar Ethylene Plant, located in Geismar, Louisiana, operates an olefins facility to produce ethylene, propylene, crude butadiene and debutanized aromatic concentrate from ethane and propane feedstocks. The Geismar Ethylene Plant is subject to the requirements of 40 CFR Part 68, Chemical Accident Prevention Provisions. The Geismar Ethylene Plant has regulated flammable substances including, propane, 1,3-butadiene, propylene, ethylene and ethane. Additionally, the plant uses chlorine, which is also a regulated toxic substance.

Five-Year Accident History

The Geismar Ethylene Plant has had an excellent record of accident prevention over the past 5 years. Every incident is investigated very carefully to determine ways to prevent the incident or similar incidents from recurring.

Approximately 60 pounds of a flammable mixture was released in 2009 due to a mechanical failure. The resulting fire caused property damage. The equipment was re-designed following this incident and the written operating procedures were revised. No injuries or off-site impacts resulted from this accident.

Less than 1 pounds of a flammable mixture was released in 2012 when improper procedures were followed on a furnace. The resulting explosion caused property damage. The flammable mixture was consumed during the explosion. New process controls are being added, operating procedures are being revised, and additional training will be conducted as a result of this accident.

General Accidental Release/Chemical-Specific Prevention Programs Steps

An accident prevention program is in place at the Geismar Ethylene Plant. Because the process at the Geismar Ethylene Plant is regulated by the EPA Risk Management Program (RMP) regulation and is also subject to the OSHA Process Safety Management (PSM) standard, the elements of these programs are listed below. Collectively, these prevention program activities help minimize potential accident scenarios that could be caused by (1) equipment failures and (2) human errors.

Employee Participation
Process Safety Information
Process Hazard Analysis (PHA)
Operating Procedures
Training
Contractors
Pre-startup Safety Reviews

Facility Name: Geismar Olefins Plant

EPA Facility Identifier: 1000 0009 8119

Plan Sequence Number: 1000001237

Mechanical Integrity
Safe Work Practices
Management of Change
Incident Investigation
Compliance Audits

The Geismar Ethylene Plant also has a security plan in place designed to comply with the Maritime Transportation Security Act (MTSA). The MTSA is a federal law designed to protect U.S. ports and waterways from a terrorist attack. It requires measures to control access to facilities and vessels that might be vulnerable to an incident resulting in a significant loss of life, environmental damage, transportation system disruption, or economic disruption.

Emergency Response Program Information

The Geismar Ethylene Plant maintains a written emergency control program, which is in place to protect worker and public safety as well as the environment. The program consists of procedures for responding to a release of a regulated substance, including the possibility of a fire or explosion if a flammable substance is accidentally released. The procedures address all aspects of emergency response, including proper first-aid and medical treatment for exposures, evacuation plans and accounting for personnel after evacuation, notification of local emergency response agencies and the public if a release occurs, and post incident cleanup and decontamination requirements. In addition, the Geismar Ethylene Plant has procedures that address maintenance, inspection, and testing of emergency response equipment, as well as instructions that address the use of emergency response equipment. Employees receive training in these procedures as necessary to perform their specific emergency response duties. The emergency control program is updated when necessary based on modifications made to Geismar Ethylene Plant processes or other Geismar Ethylene Plant facilities.

The overall emergency control program for the Geismar Ethylene Plant is coordinated with the Ascension and Iberville Parishes Local Emergency Planning Committees (LEPC). This coordination includes periodic meetings of the committees, which include local emergency state officials, local government officials, and industry representatives. The Geismar Ethylene Plant has communications capability with appropriate officials and emergency response organizations (e.g., sheriff's office, Geismar Area Mutual Aid, complex emergency brigade, etc.). This provides a means of notifying the public of an incident, if necessary, as well as facilitating quick response to an incident. In addition to periodic LEPC meetings, the Geismar Ethylene Plant conducts periodic emergency drills.

Planned Changes to Improve Safety

The Geismar Ethylene Plant is committed to operating our facility in a safe and responsible manner. We are continually evaluating our equipment and procedures to meet this objective and have identified recommendations during past studies. These recommendations are currently being implemented where appropriate.